

DEVAL L. PATRICK GOVERNOR

TIMOTHY P. MURRAY LIEUTENANT GOVERNOR

JUDYANN BIGBY, MD SECRETARY

JOHN AUERBACH COMMISSIONER

The Commonwealth of Massachusetts

Executive Office of Health and Human Services
Department of Public Health
William A. Hinton State Laboratory Institute
305 South Street, Jamaica Plain, MA 02130
617-983-6622

06/15/11

Catherine Ham Assistant District Attorney, Plymouth County

Dear ADA Ham,

Enclosed are copies of the information you requested regarding sample numbers in the following:

- 1. Drug Analysis Laboratory Receipt.
- 2. Curriculum Vitae for Daniela Frasca and Annie Khan (Dookhan).
- 3. Control Cards with Analytical Results for sample numbers
- 4. Analysis Notation Forms for sample number
- 5. GC-MS Raw Data Sheets for sample number

GC-MS confirmatory testing was performed by Annie Khan (Dookhan). All other testing was performed by Daniela Frasca. If you have any questions or concerns about these facts, please contact me at the number below.

Sincerely.

Daniela Frasca

Chemist II

Drug Laboratory

617 983-6631

fax: 617 983-6625

PLEASE PRINT CLEARLY OR TYPE ALL INFORMATION

The Commonwealth of Massachusetts Executive Office of Health and Human Services

Department of Public Health State Laboratory Institute

Boston Drug Laboratory Tel (617) 983-6622 Fax (617) 983-6625 Amherst Drug Laboratory Tel (413) 545-2601 Fax (413) 545-2608

2.... (811) 202 0025

Boston Hours

Amherst Hours

| 8:00 - 11:00 2:00 - 4:00 DRUG RE | | | Γ | | 9:00 - 12:00 1:00 - 3:00 |
|--|---------------------------|---|----------|---------------------------------------|--------------------------------|
| City or Department: Brockton Police I | Department | Pol | ice Refe | erence No.: | |
| Name and Rank of Submitting Officer: DO | NOHUE, PATRICK S | 380 | DOC # | ‡ R012374 | |
| Defendant(s) Name (last,first,initial): | | | | , , , , , , , , , , , , , , , , , , , | |
| | | | | | |
| To be completed by Submitter Description of Items Submitted | | | | To be completed Gross Weight | by Lab Personnel Lab Number |
| 1) PLASTIC BAGS UNK WHITE ROCK PLASTIC BAG UNK WHITE ROCK | (QTY: 12) (S17356) | | 51 | 80 m | |
| 2) UNK WHITE POWDER RESIDUE (LC | OOSE) (QTY: 1) (S17357 |) | 1,5 | 3 an | |
| | | | | 8' | |
| | | | | | |
| | | *************************************** | | | |
| | | | | | |
| | | | | | |
| | | | , | _ | |
| Received By: | | | | Date: | R.2.09 |

Education

Boston University School of Medicine, Boston MA

Currently enrolled in the Biomedical Forensic Science MS Program

Suffolk University, Boston, MA

Graduated in 05/1996 and received a Bachelor of Science in Biochemistry

EXPERIENCE

Massachusetts State Laboratory Institute/DPH, Jamaica Plain, MA 01/2001 – present Drug Laboratory: Chemist II

- Analysis of all substances by chemical screening, microscopy, and instrument confirmation to determine the presence of drugs for law enforcement agencies in the Commonwealth of Massachusetts.
- Appointed assistant analyst on January 29, 2001 by the Assistant Commissioner of DPH
- Completed four weeks of training in drug analysis under the supervision of senior chemists.

Quest Diagnostics Incorporated, Cambridge, MA

09/1996 - 10/2001

Department of Toxicology: Medical Technologist I

- Handles comprehensive toxic analysis, therapeutic drug monitoring, forensic drug screening, and compound ID's of biohazard samples utilizing standard operating procedures in clinical toxicology.
- · Entered data and interpreted results for reporting
- QC/QA of multiple analytical instrumentation as well as maintenance
- Completed 60 days of training under the supervision of doctorate level toxicologists.

Additional Training

Northeastern Association of Forensic Scientists

Designer Drugs

Clandestine labs

Agilent Instruments and Software

Digital Photography

McCrone Research Institute

Forensic Polarized Microscopy

Polarized Microscopy of Illicit Drugs and Excipients

Massachusetts State Laboratory Institute

Expert Witness

Raman Spectroscopy

Associations and Programs

| | Northeastern Association of Forensic Scientists (NEAFS) | 2001 - present |
|---|---|----------------|
| | The International Association of Forensic Toxicologists (TIAFT) | 2003 - present |
| 0 | The International Association of Therapeutic Drug Monitoring | 2003 - present |
| | And Clinical Toxicology (IATDMCT) | |
| | Massachusetts State Science Fair Judge | 2000 - present |
| | Middle School State Science Fair Judge | 2006 - present |
| • | Volunteer Science Project Mentor/Tutor | 2003 - present |
| | for the TTT Mentor Program | * |

Curriculum Vitae

Annie Khan (Dookhan)

Education:

University of Massachusetts, Boston, Ma, Master of Science in Chemistry. University of Massachusetts, Boston, Ma, Bachelor of Science in Biochemistry.

Experience:

2003 – present

Chemist I, II, Massachusetts Department of Public Health, Drug Analysis Laboratory

- *Completed six-week training course conducted by senior staff within the Department of Public Health, Drug Analysis Laboratory.
- *Appointed Assistant Analyst by Assistant Commissioner of Public Health, 2004.
- *Responsible for the identification of illicit drugs to determine violations of harmful and narcotic drug laws.
- *Trained in the use of complex analytical instrumentation, microscopes and balances for the purpose of drug analysis.
- *Maintenance and repairs of all analytical instruments.
- *Responsible for the Quality Control of all analytical instruments, reagents and controls/standards.
- * Responsible for the Quality Control/Quality Assurance program for the drug lab.
- *Notary Public.
- *Qualified as an expert witness in Massachusetts Courts and U.S. District Court

2001 - 2003

QC Analyst I, II, UMMS-Massachusetts Biologic Laboratory, QC Material Control

- *Completed proficiency training conducted by a member of the staff within the MLB Quality Control and Quality Assurance Department.
- *Method Development for creating new techniques and enhancing vaccines for the QC Dept. and FDA.
- *Writing, revising and reviewing Standard Operating Procedures (SOPs).
- *Trained and supervised new chemists and interns for the department.
- *Routine QC testing of products for the FDA.
- *Trained in the use of complex analytical instrumentation, and balances for the purpose of QC analysis for product and validation projects.
- *Calibration, preventive maintenance, QC and QA of analytical instrumentation.
- *Complete testing of chemicals for Vendor Validation Project for the FDA.
- *Compendial testing and interpretation of the USP, ACS, FCC, AOAC, Merck Index, PDR, etc.

Additional Training:

Dept. of Justice – Forensics Professionals, (numerous trainings)

GLP/GMP course with Massachusetts Biologic Laboratory,

QC/QA training according to FDA Codes and Regulations.

GC and GC/MS courses with Agilent Technologies and Restek.

HPLC course with Waters Cooperation.

FTIR course with Spectros.

TOC training with MBL and Sievers.

Association:

American Chemical Society (ACS)

Northeastern Association of Forensics Science (NEAFS)

No.

Date Analyzed: 12-31-09

City: Brockton Police Dept.

Officer: Detective PATRICK DONOHUE

Def:

Amount:

Cont: pb

Subst: SUB

No. Cont:

12

No. Analyzed:

Date Rec'd: 12/02/2009

Gross Wt.:

Findings:

cocaro

Date Analyzed: 12/29/09

City: Brockton Police Dept.

Officer: Detective PATRICK DONOHUE

Def:

Amount:

Subst: RES

No. Cont:

Cont: pb

Date Rec'd: 12/02/2009

Gross Wt.:

1.55

No. Analyzed:

Net Weight:

Tests:

Prelim:

Findings: 161 Tassadam

Folk_OIG_PRR_036241

DRUG POWDER ANALYSIS FORM

AGENCY Brockhon ANALYST DOB SAMPLE #

PHYSICAL DESCRIPTION:

Evmor

Substance in 12 PB morted "X" in black.

ZMarg -

6ross M. 4, 20729

2 Proed -

ZMeck -

Gross Ma and Mer Wa of 2 randomly and and and

2 Cabalt -, + Marand

260ld +

2 TLTA -, + Madd

1254 morted Normot 12 by 215 (2.759)

PRELIMINARY TEST RESULTS

RESULTS Cacarbe

DATE 17/29/09

GC/MS CONFIRMATORY TEST

RESULTS (asube

MS OPERATOR PIDITA 145:1950

DATE 12/31/09

samples tested: 2

| # | <i>Gross</i> Weight | Packet Weight | Net Weight | # | Gross Weight | |) = 25 t t t t = |
|-------------|---|--|---------------|---|-----------------|--|--|
| 1 | 0.3510 | | 0, 2313 | 26 | | • | 5 = 1237 3. |
| | 0.3376 | | 0.2271 | 27 | | a | (* 72 5 2 % · |
| 3 | | | 0.4584 | 28 | <u></u> | | 127 = |
| 4 | | <u></u> | | 29 | · | . (| 74011 |
| 5 | <u> </u> | = 0.2 | 292 | 30 | | | The state of the s |
| 6 | | | | 31 | | | |
| 7 | | | | 32 | | | |
| 88 | X 12 | := Z. 7 | 504 | 33 | | | |
| 9 | | | | 34 | | | |
| 10 | | | | 35 | | | |
| 11 | E511mo | 100/1/02 /2.7 | mof | 36 | | 87777777777777777777777777777777777777 | |
| 12 | 12 by | 2/5 (27 | 759) | 37 | | *************************************** | |
| 13 | | | | 38 | | Mark Mark Mark Mark Mark Mark Mark Mark | |
| 14 | *************************************** | | | 39 | | | W. W |
| 15 | | | | 40 | | | |
| 16 | | | | 41 | | | |
| 17 | | | | 42 | | | 202-100111-0000/1-00000-00000-00000-00000-00000-0000 |
| 18 | | | | 43 | | | |
| 19 | | | | 44 | | | |
| 20 | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | | 45 | | | |
| 21 | | | | 46 | | 000000000000000000000000000000000000000 | |
| 22 | | | | 47 | | inter manner in namentarian manuscription in the state of | *************************************** |
| 23 | | | | 48 | | | · |
| 24 | | 48000-01-0-10-00-00-00-00-00-00-00-00-00-0 | | 49 | | | |
| 25 Calcu | lations: | | | 50 | | | <u> </u> |
| Calcu | iauUI IS. | · | | | | | |
| | | W-24 | | *************************************** | | *************************************** | |

Area Percent / Library Search Report

Information from Data File:

File Name : F:\Q4-2009\SYSTEM7\12 29 09\689558.D

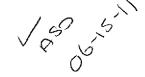
Operator : DJR

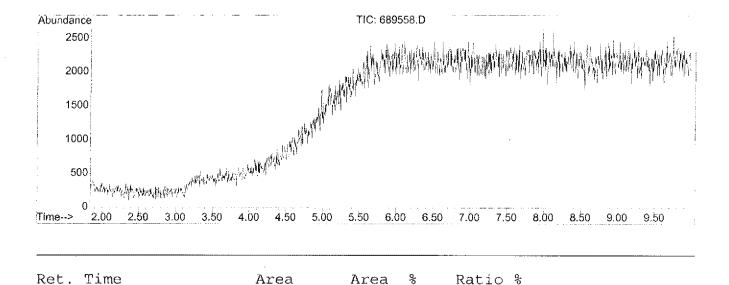
Date Acquired : 30 Dec 2009 9:49

Sample Name : BLANK

Submitted by

Vial Number 2 AcquisitionMeth: DRUGS Integrator : RTE





NO INTEGRATED PEAKS

Area Percent / Library Search Report

Information from Data File:

File Name : $F:\Q4-2009\SYSTEM7\12_29_09\689559.D$

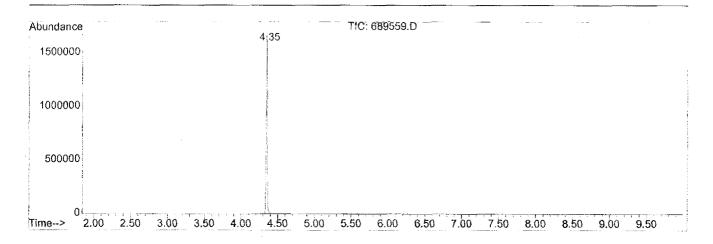
Operator : DJR

Date Acquired : 30 Dec 2009 10:02

Sample Name : COCAINE STD

Submitted by

Vial Number 59 : AcquisitionMeth: DRUGS Integrator : RTE



| Ret. Time | Area | Area % | Ratio % |
|-----------|---------|--------|---------|
| 4.347 | 1532041 | 100.00 | 100.00 |

File Name : $F: \sqrt{4-2009} \times TEM7 \cdot 12 29 09 \cdot 689559.D$

Operator : DJR

Date Acquired : 30 Dec 2009 10:02

Sample Name : COCAINE STD

Submitted by :

Vial Number : 59 AcquisitionMeth: DRUGS Integrator : RTE

Search Libraries: C:\DATABASE\SLI.L Minimum Quality: 90

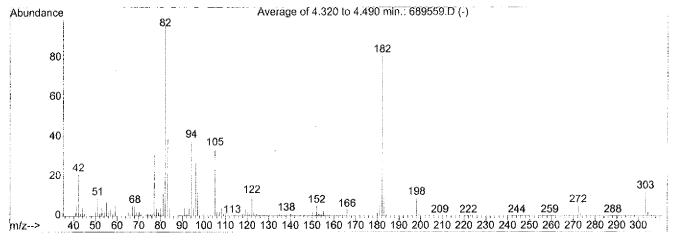
C:\DATABASE\PMW TOX2.L Minimum Quality: 90

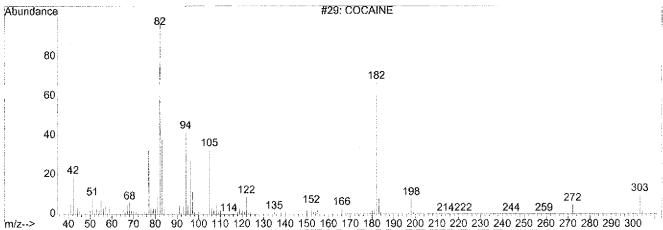
C:\DATABASE\NIST98.L

PK# RT Library/ID CAS# Qual

1 4.35 C:\DATABASE\SLI.L

COCAINE 000050-36-2 99





689559.D

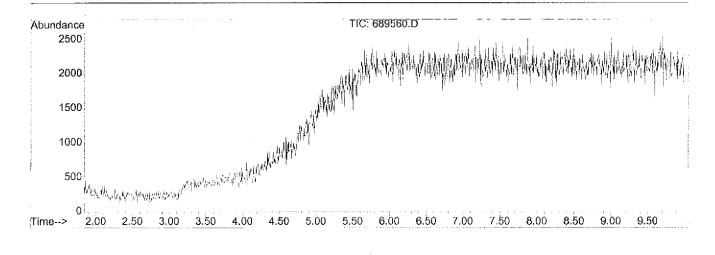
Wed Jun 15 07:43:52 2011

File Name : F:\Q4-2009\SYSTEM7\12_29_09\689560.D

Operator : DJR

Date Acquired : 30 Dec 2009 10:15

Sample Name : BLANK Submitted by : DXF Vial Number : 2 AcquisitionMeth: DRUGS Integrator : RTE



Ret. Time Area Area % Ratio %

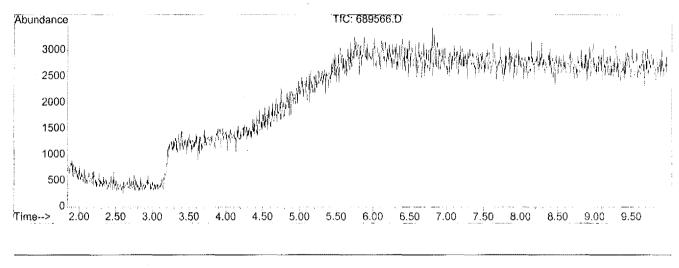
NO INTEGRATED PEAKS

File Name : $F:\Q4-2009\SYSTEM7\12\ 29\ 09\689566.D$

Operator : DJR

Date Acquired : 30 Dec 2009 11:30

Sample Name : BLANK Submitted by : DXF Vial Number : 2 AcquisitionMeth: DRUGS Integrator : RTE



Ret. Time Area Area % Ratio %

NO INTEGRATED PEAKS

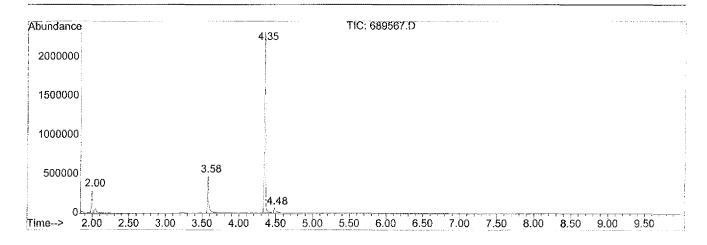
File Name : F:\Q4-2009\SYSTEM7\12_29_09\689567.D

Operator : DJR

Date Acquired : 30 Dec 2009 11:43

Sample Name :

Submitted by : DXF
Vial Number : 67
AcquisitionMeth: DRUGS
Integrator : RTE



| Ret. Time | Area | Area % | Ratio % | |
|----------------|-------------------|----------------|-----------------|--|
| 1.996 | 279437 | 8.05 | 11.11 | |
| 3.579 4.347 | 562709 2516021 | 16.22 72.52 | 22.37 100.00 | |
| 4.479 | 111245 | 3.21 | 4.42 | |

File Name : F:\Q4-2009\SYSTEM7\12 29 09\689567.D

Operator : DJR

Date Acquired : 30 Dec 2009 11:43

Sample Name

Submitted by : DXF
Vial Number : 67
AcquisitionMeth: DRUGS
Integrator : RTE

Search Libraries: C:\DATABASE\SLI.L

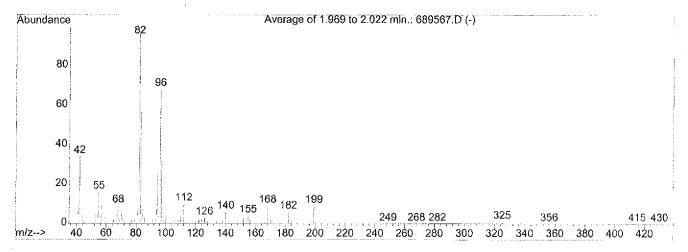
Minimum Quality: 90

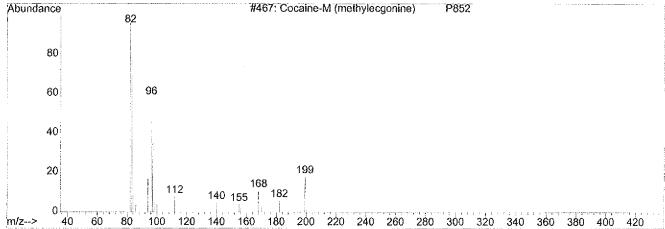
C:\DATABASE\PMW_TOX2.L

Minimum Quality: 90

C:\DATABASE\NIST98.L

| PK# | RT | Library/ID | | CAS# | Qual |
|-----|------|---|----|---|----------------|
| 1 | 2.00 | C:\DATABASE\PMW_TOX2.L Cocaine-M (methylecgonine) Cocaine-M (methylecgonine) Cocaine | AC | 007143-09-1 000000-00-0 000050-36-2 | 97 45 38 |





689567.D

Wed Jun 15 07:44:06 2011

File Name : $F:\Q4-2009\SYSTEM7\12\ 29\ 09\689567.D$

Operator : DJR

Date Acquired : 30 Dec 2009 11:43

Sample Name :

Submitted by : DXF
Vial Number : 67
AcquisitionMeth: DRUGS
Integrator : RTE

Search Libraries: C:\DATABASE\SLI.L

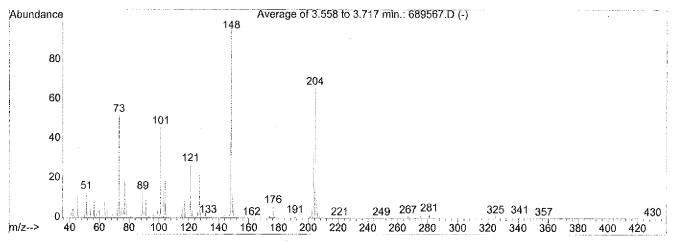
Minimum Quality: 90

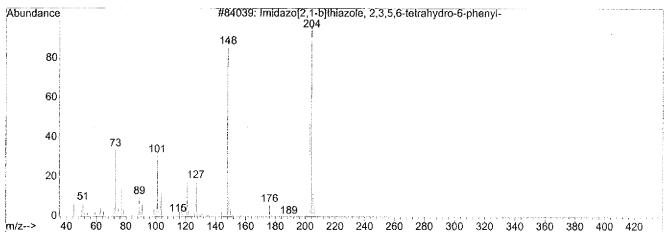
C:\DATABASE\PMW_TOX2.L

Minimum Quality: 90

C:\DATABASE\NIST98.L

| PK# | K1" | Library/iD | | CAS# | Quai |
|-----|------|------------------------------------|-------------|-------------|------|
| 2 | 3.58 | C:\DATABASE\NIST98.L | | | |
| | | Imidazo[2,1-b]thiazole, | 2,3,5,6-tet | 006649-23-6 | 98 |
| | | <pre>Imidazo[2,1-b]thiazole,</pre> | 2,3,5,6-tet | 006649-23-6 | 98 |
| | | <pre>Imidazo[2,1-b]thiazole,</pre> | 2,3,5,6-tet | 006649-23-6 | 97 |





689567.D

Wed Jun 15 07:44:08 2011

File Name : F:\Q4-2009\SYSTEM7\12_29_09\689567.D

Operator : DJR

Date Acquired : 30 Dec 2009 11:43

Sample Name Submitted by Vial Number

DXF 67 AcquisitionMeth: DRUGS : RTE Integrator

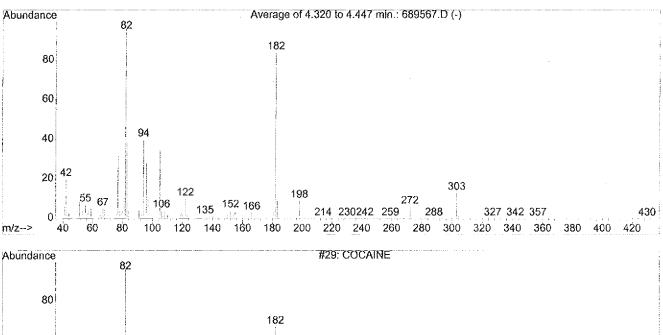
Search Libraries: C:\DATABASE\SLI.L Minimum Quality: 90

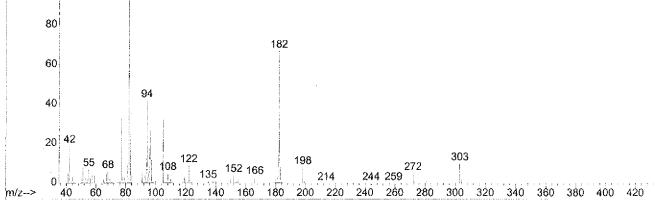
C:\DATABASE\PMW TOX2.L

Minimum Quality: 90

C:\DATABASE\NIST98.L

| PK# | RT | Library/ID | CAS# | Qual |
|-----|------|------------------------------|-------------|------|
| . 3 | 4.35 | C:\DATABASE\SLI.L COCAINE | 000050-36-2 | 99 |





689567.D

Wed Jun 15 07:44:09 2011

File Name : $F:\Q4-2009\SYSTEM7\12\ 29\ 09\689567.D$

Operator : DJR

Date Acquired : 30 Dec 2009 11:43

Sample Name :

Submitted by : DXF Vial Number : 67 AcquisitionMeth: DRUGS Integrator : RTE

Search Libraries: C:\DATABASE\SLI.L

Minimum Quality: 90

C:\DATABASE\PMW TOX2.L

Minimum Quality: 90

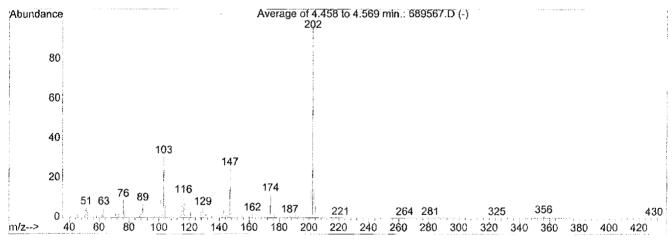
C:\DATABASE\NIST98.L

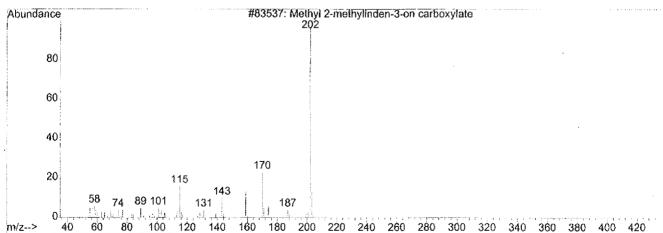
PK# RT Library/ID CAS# Qual

4 4.48 C:\DATABASE\NIST98.L

Methyl 2-methylinden-3-on carboxyla 1000214-93-4 50 Pyrene 000129-00-0 49

Benzene, 1,1'-(1,3-butadiyne-1,4-di 000886-66-8 47





689567.D

Wed Jun 15 07:44:10 2011

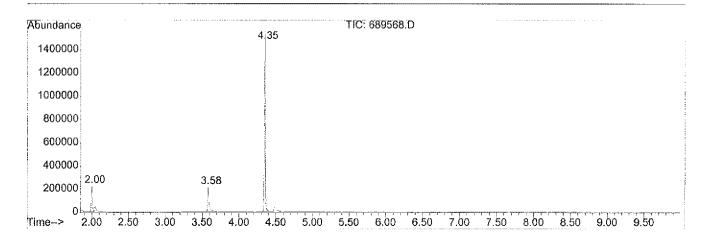
File Name : F:\Q4-2009\SYSTEM7\12_29_09\689568.D

Operator : DJR

Date Acquired : 30 Dec 2009 11:56

Sample Name :

Submitted by : DXF
Vial Number : 68
AcquisitionMeth: DRUGS
Integrator : RTE



| Ret. Time | Area | Area % | Ratio % |
|-----------|---------|--------|---------|
| 1.996 | 218074 | 11.14 | 15.02 |
| 3.579 | 288449 | 14.73 | 19.87 |
| 4.347 | 1451747 | 74.13 | 100.00 |

File Name : $F:\Q4-2009\SYSTEM7\12\ 29\ 09\689568.D$

Operator : DJR

Date Acquired : 30 Dec 2009 11:56

Sample Name :

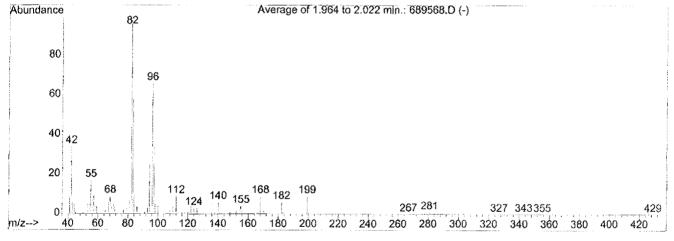
Submitted by : DXF Vial Number : 68 AcquisitionMeth: DRUGS Integrator : RTE

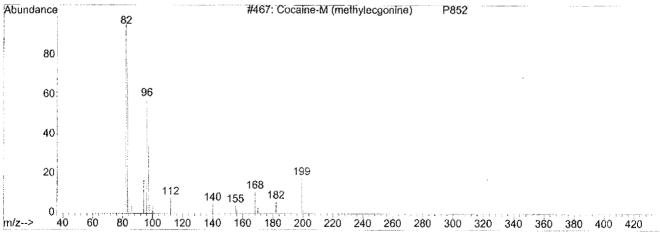
Search Libraries: C:\DATABASE\SLI.L Minimum Quality: 90

C:\DATABASE\PMW TOX2.L Minimum Quality: 90

C:\DATABASE\NIST98.L

| PK# | RT | Library/ID | CAS# | Qual |
|-----|------|---|-------------|------|
| 1 | 2.00 | C:\DATABASE\PMW_TOX2.L | | |
| | | Cocaine-M (met $\overline{	ext{hylecgonine}}$) | 007143-09-1 | 97 |
| | | Cocaine | 000050-36-2 | 38 |
| | | Cocaine-M (methylecgonine) AC | 000000-00-0 | 12 |





689568.D

Wed Jun 15 07:44:14 2011

File Name : $F:\Q4-2009\SYSTEM7\12\ 29\ 09\689568.D$

Operator : DJR

Date Acquired : 30 Dec 2009 11:56

Sample Name :

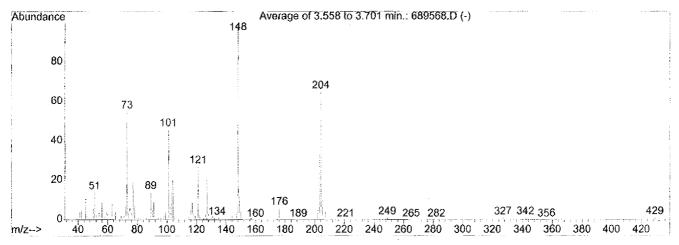
Submitted by : DXF Vial Number : 68 AcquisitionMeth: DRUGS Integrator : RTE

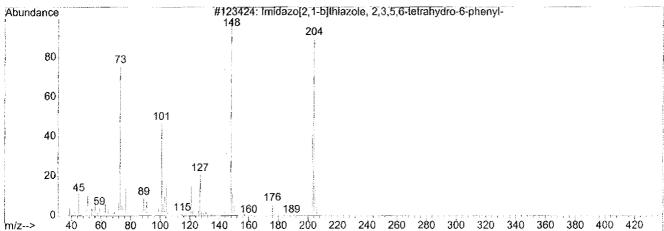
Search Libraries: C:\DATABASE\SLI.L Minimum Quality: 90

C:\DATABASE\PMW_TOX2.L Minimum Quality: 90

C:\DATABASE\NIST98.L

| PK# | RT | Library/ID | | CAS# | Qual |
|-----|------|---|-------------|-------------|----------|
| 2 | 3.58 | C:\DATABASE\NIST98.L Imidazo[2,1-b]thiazole, | 2 2 5 6-+0+ | 006649.22-6 | 98 |
| | | Imidazo[2,1-b]thiazole, Imidazo[2,1-b]thiazole, Imidazo[2,1-b]thiazole, | 2,3,5,6-tet | 006649-23-6 | 98 98 |





689568.D

Wed Jun 15 07:44:15 2011

File Name : $F:\Q4-2009\SYSTEM7\12\ 29\ 09\689568.D$

Operator : DJR

Date Acquired : 30 Dec 2009 11:56

Sample Name :

Submitted by : DXF Vial Number : 68 AcquisitionMeth: DRUGS Integrator : RTE

Search Libraries: C:\DATABASE\SLI.L

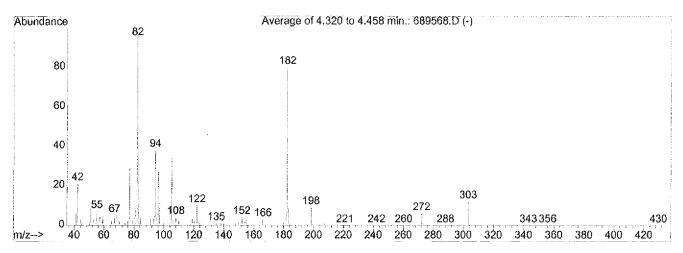
Minimum Quality: 90

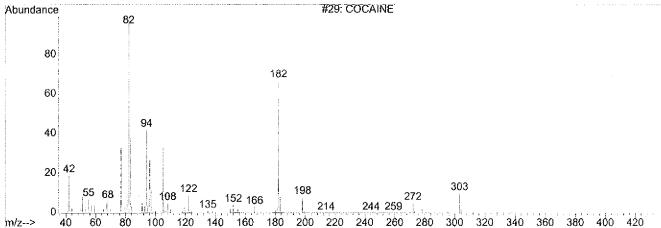
C:\DATABASE\PMW_TOX2.L

Minimum Quality: 90

C:\DATABASE\NIST98.L

| PK# | RT | Library/ID | CAS# | Qual |
|-----|------|-------------------|-------------|------|
| 3 | 4.35 | C:\DATABASE\SLI.L | 000050-36-2 | 99 |





689568.D

Wed Jun 15 07:44:15 2011

File Name : F:\Q4-2009\SYSTEM7\12_29_09\689569.D

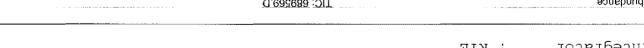
: DIK Oberator

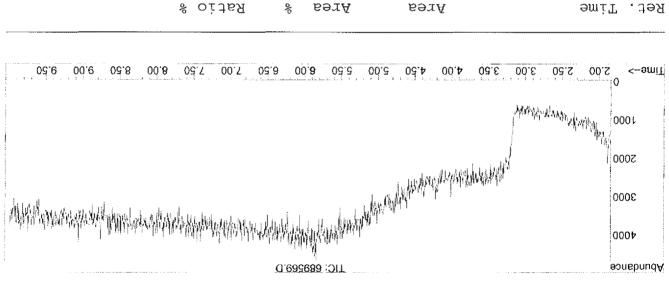
12:08 Date Acquired : 30 Dec 2009

: BPYNK Sample Name

Vial Number Submitted by : DXE

Integrator : RTE AcquisitionMeth: DRUGS





Area

Area

NO INTEGRATED PEAKS

ьяде

1102 61:44:79 St unt bew

G.692689

Area Percent / Library Search Report

Information from Data File:

File Name : F:\Q4-2009\SYSTEM7\12_29_09\689580.D

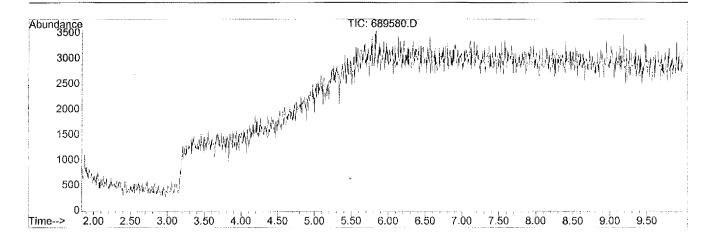
Operator : DJR

Date Acquired : 30 Dec 2009 14:29

Sample Name : BLANK

Submitted by :

Vial Number : 2 AcquisitionMeth: DRUGS Integrator : RTE



Ret. Time Area Area % Ratio %

NO INTEGRATED PEAKS

File Name : F:\Q4-2009\SYSTEM7\12_29_09\689581.D

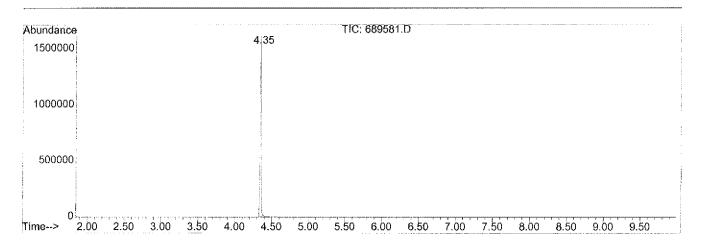
Operator : DJR

Date Acquired : 30 Dec 2009 14:42

Sample Name : COCAINE STD

Submitted by :

Vial Number : 81 AcquisitionMeth: DRUGS Integrator : RTE



| Ret. Time | Area | Area % | Ratio % |
|-----------|---------|--------|---------|
| 4.347 | 1449445 | 100.00 | 100.00 |

File Name : $F:\Q4-2009\SYSTEM7\12\ 29\ 09\689581.D$

Operator : DJR

Date Acquired : 30 Dec 2009 14:42

Sample Name : COCAINE STD

Submitted by :

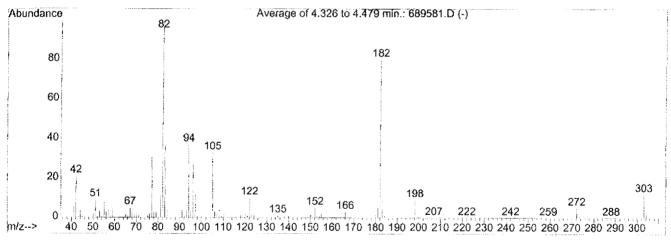
Vial Number : 81 AcquisitionMeth: DRUGS Integrator : RTE

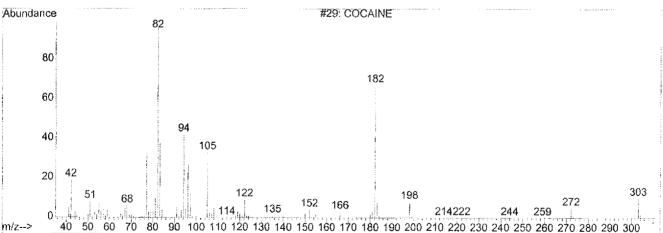
Search Libraries: C:\DATABASE\SLI.L Minimum Quality: 90

C:\DATABASE\PMW TOX2.L Minimum Quality: 90

C:\DATABASE\NIST98.L

| PK# | RT | Library/ID | CAS# | Qual |
|-----|------|------------------------------|-------------|------|
| 1 | 4.35 | C:\DATABASE\SLI.L COCAINE | 000050-36-2 | 99 |





689581.D

Wed Jun 15 07:44:29 2011

Area Percent / Library Search Report

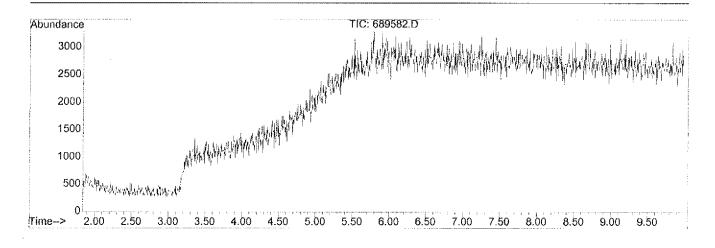
Information from Data File:

File Name : $F:\Q4-2009\SYSTEM7\12_29_09\689582.D$

Operator : DJR

Date Acquired : 30 Dec 2009 14:54

Sample Name : BLANK Submitted by : DXF Vial Number : 2 AcquisitionMeth: DRUGS Integrator : RTE



Ret. Time Area Area % Ratio %

NO INTEGRATED PEAKS